

### REMARKS

This is a continuation of Serial No. 10/121,650 (hereinafter "the parent application").

The specification and FIG. 3 have been amended as presented in the parent application. Claims 1-5 have been canceled. Claims 6-8 have been added to provide Applicants with the scope of protection to which they are believed entitled. Claims 6-8 correspond to claims 6-8 of the parent application which have been finally rejected by an Office Action mailed November 5, 2003 as being anticipated by *Field* (U.S. Patent No. 6,535,005). Claims 6-8 in this application have been drafted to overcome the anticipatory rejection in the parent application.

No new matter has been introduced through the foregoing amendments.

The test assembly of the present invention, as now recited new claim 6, comprises: a package substrate and a test board. The package substrate has a plurality of first contact pads adapted for receiving solder bumps (page 3, line 20 to line 21 of the amended specification) and a plurality of first conductors (bold lines originally filed Fig. 2) connecting selected pairs of first contact pads. The test board has a plurality of second contact pads, a plurality of test pads and a plurality of second conductors (bold lines in originally filed Fig. 3) connecting selected pairs of the second contact pads. All of the second contact pads are divided into a plurality of groups. When an IC package with the package substrate is mounted on the test board with each solder bump soldered to a corresponding contact pad, all of the pairs of connected second contact pads and corresponding pairs of connected first contact pads form a conductive path that passes through all of the solder bumps therebetween (see, e.g., Fig. 4).

The test assembly of the present invention specifically requires that the test board have a plurality of second contact pads, a pair major test pads (see, e.g., S and E in Figs. 3-4), a plurality of minor test pads (see, e.g. N/E/S/W1-5 in Figs. 3-4) and a plurality of second conductors connecting selected pairs of the second contact pads, wherein all of the second contact pads are divided into a plurality of groups such that all of the second contact pads in the same group are arrange in a line. When one pair of the minor test pads is probed, only one corresponding group of connected second contact pads and the corresponding connected first contact pads form another closed circuit

through all of the solder bumps therebetween (*see* page 4 lines 12-19 of the specification which also discloses an advantage of the claim structure). The above features and advantage are neither disclosed, taught, nor suggestion by the Field Patent and the prior art references cited in the parent application.

Accordingly, Applicant respectfully submits that all pending claims, i.e., claims 6-8, are now in condition for allowance. Early and favorable indication of allowance is courteously solicited.

The Examiner is invited to telephone the undersigned, Applicant's attorney of record, to facilitate advancement of the present application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 07-1337 and please credit any excess fees to such deposit account.

Respectfully submitted,

**LOWE HAUPTMAN GILMAN & BERNER, LLP**

Benjamin J. Hauptman  
Registration No. 29,310

1700 Diagonal Road, Suite 310  
Alexandria, VA 22314  
(703) 684-1111 BJH/KL/klb  
(703) 518-5499 Facsimile  
**Date: February 10, 2004**